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Applicant : Kazunori KANEDA.

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For : TIRE REINFORCING MEMBER AND REINFORCED
PNEUMATIC TIRE

Art Unit & Examiner : 1733, FISCHER, JUSTIN R

DECLARATION UNDER 37 CFR 1.132

ASSISTANT COMMISSIONER FOR PATENTS

WASHINGTON, D.C. 20231

Sir:

I, Kazunori KANEDA, residing 2971-1, Kitairiso, Sayama-shi,
Saitama-ken, Japan, declare that:

1. I graduated from Tohoku University with a Master's degree in School of Engineering in March 1994, and joined BRIDGESTONE CORPORATION in April 1994. Then, I was engaged in the research and development of a steel cord for five years, and from November 1999, I have been engaged in the development of the steel cord-to-coating rubber adhesion in Material-Development up to the present.

2. I am inventor of present U.S. Patent Application as identified above and familiar with the subject matter disclosed in the application.

3. Experiment

Object of Experiment

In order to clarify difference in the tests for the initial adhesion and the resistance to the loss of the steel cord-to-coating rubber adhesion between the hydrotalcite mineral defined in the present invention and the Magnesium oxide (MgO) disclosed by U.S Patent No.4,057,529, the following experiments were conducted.

Procedure of the Experiment

The same procedure as in Examples 1 to 5 in the Specification was repeated to prepare test samples No. 1 to 9, provided that only the composition A was used for the coating rubber composition of the composite layer in the carcass ply of the test tire, and that the same hydrotalcite and MgO as in Examples were used as a basic inorganic filler in an amount shown in Table 1 (Namely, the hydrotalcite and MgO were compounded in the basic composition A).

Each test sample thus prepared was examined on the initial adhesion and the resistance to adhesion loss in the same manner as in Examples. The results obtained are shown in Table 1.

Table 1

Sample No.	1	2	3	4	5	6	7	8	9
Rubber Composition	A	A	A	A	A	A	A	A	A
Hydrotalcite	-	0.5	1.0	2.0	5.0	-	-	-	-
MgO	-	-	-	-	-	0.5	1.0	2.0	5.0
Initial adhesion(%)	95	90	90	90	90	90	90	90	90
Resistance to adhesion loss(%)	10	50	60	65	75	30	40	50	60

4. Consideration

It is clearly recognized from the results of the above Experiments that the adhesive property having resistance to the loss of the steel cord-to-coating rubber adhesion in case when the hydrotalcite mineral is compounded in the coating rubber composition is greatly enhanced and improved, as compared with that in case when MgO is used in place of the hydrotalcite. (Note : the comparison may be more clearly understandable by contrasting the equal amount used both of the two.)

5. I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

23 / 4 / 2003

Kazunori Kaneda

Date

Kazunori KANEDA